UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

MEMORANDUM

SUBJECT: Review of Storage Stability and Corrosion Characteristics Data Submitted in Response to Terms of Registration.

Decision Number:	491952
DP Number:	449901
Submission Number:	1023615
EPA Reg. No. or File Symbol:	85685-3 (EP)
Active ingredient Names:	*Bacillus thuringiensis* subspecies *israelensis* strain BMP 144, and, *Bacillus sphaericus* 2362
Active Ingredient Type:	Microbial
PC Codes:	006520; 119804
CAS Number:	N/A
MRID Numbers:	493442-01; 506528-01
Submitter Name:	FourStar Microbial Products, LLC

FROM: Joel V. Gagliardi, Ph.D.; Microbial Ecologist
Risk Assessment Branch
Biopesticides and Pollution Prevention Division

JOEL GAGLIARDI Digitally signed by JOEL GAGLIARDI Date: 2019.08.20 15:18:45 -04'00'

THROUGH: Mark Perry; Risk Assessment Process Leader
Risk Assessment Branch
Biopesticides and Pollution Prevention Division

MARK PERRY Digitally signed by MARK PERRY Date: 2019.09.06 10:46:29 -04'00'

TO: Donna Kamarei; Risk Manager
Microbial Pesticides Branch
Biopesticides and Pollution Prevention Division

BACKGROUND: FourStar Microbial Products, LLC submitted storage stability and corrosion characteristics data to satisfy a term of registration for the product FourStar MBG, EPA Reg. No. 85685-3.

CONCLUSIONS: The submitted studies are **Acceptable** and **satisfy** the term of registration requirement to provide acceptable storage stability/corrosion characteristics data for FourStar MBG.

STUDY PARAMETERS:

Active Ingredient Minimum Guarantee: 30 International Toxic Units per mg (30 ITU/mg) of *Bacillus sphaericus* 2362 and 210 International Toxic Units per mg (210 ITU/mg) of *Bacillus thuringiensis* subspecies *israelensis* strain BMP 144.

Study performed under GLP: This study was not performed under GLP.

Study Duration: 12 months

Type of Container/Packaging Tested: Fresco 6.0 mil plastic gusseted bag.

Study temperature: 21°C.

Assay intervals (months): 12.

Description of assay method employed: Plastic 26-gallon containers with 5g rabbit alfalfa pellets as larval food each received 25 *Culex quinquefasciatus* Say mosquito larvae, alongside untreated control containers; there were 5 replicates of treated (0°C and 21°C stored samples) and untreated for a total test population of 125 for each. FourStar MBG granules were added at the equivalent field rate of 10 lb/acre (435 mg per container) within 24 hours of setup and observations for mortality were begun, until such time as pupation occurred and the experiment ended. Packaging of samples was observed for any corrosion when accessing the 12-month samples for testing.

RESULTS: Mosquito larvae mortality in the control (untreated) tanks was 3.2% (2/125) while in the tanks treated with FourStar MBG granules both the 0°C and 21°C stored samples yielded 100% mortality (125/125) prior to larval pupation. No corrosion of packaging was evident at 12 months.